

CLAIMS

1. A vending machine comprising:
an article stocker that stores a plurality of articles;
an article moving mechanism that moves at least one of the plurality of articles stored in the article stocker into an article guide path;
a manual operation means that is manually driven; and
a drive force generation/transmission mechanism that generates a drive force by utilizing a force applied from the manual operation means and transmits the drive force to the article moving mechanism as an operation source therefor,
the drive force generation/transmission mechanism including a generator that generates an electric power by utilizing the force applied from the manual operation means and a motor driven by the electric power generated by the generator,
the article moving mechanism being constructed to operate by utilizing the output of the motor as the operation source.
2. The vending machine according to claim 1, further comprising a display device that carries out electrical and/or voice indication by using the output of the generator.
3. The vending machine according to claim 1, wherein the manual operation means includes a rotary member rotating about a rotating shaft and a handle section provided at the rotary member, which is operated to rotate the rotary member, and
wherein the drive force generation/transmission

mechanism includes an accelerating mechanism that causes the rotating shaft of the generator to rotate at a higher speed than that of the rotary member by utilizing the rotation of the rotary member.

4. The vending machine according to claim 1, wherein the article moving mechanism includes a rotating shaft having an axis line that coincides with a center line of the article stocker and is driven by the drive force to rotate the article stocker, a first moving mechanism that moves the article from the article stocker, which is rotated as the rotating shaft rotates, to a predetermined position, and a second moving mechanism that moves the article, which has been moved to the predetermined position as the rotating shaft rotates, into the article guide path.

5. An vending machine, comprising:

n (n is an integer of 2 or more) article stockers that respectively store a plurality of articles;

one article guide path;

n article moving mechanisms provided respectively to the n article stockers, which move one of the plurality of articles stored in the n article stockers into the one article guide path;

one manual operation means that is manually driven; and

a drive force generation/transmission mechanism that generates a drive force by utilizing a force applied from the one manual operation means and transmits a drive force

selectively to the n article moving mechanisms as an operation source therefor,

the drive force generation/transmission mechanism including a generator that generates an electric power by utilizing a force applied from the one manual operation means, n motors correspondingly provided for the n article stockers and selectively driven by utilizing the electric power generated by the one generator provided for the n article stockers and a motor selection/drive device that drives only one of the motors selected when operating the manual operation means, and

the n article moving mechanisms being constructed to operate by utilizing the output of the corresponding motors as the operation source.

6. The vending machine according to claim 5, wherein the drive force generation/transmission mechanism includes n coin collecting devices provided correspondingly at the n article stockers to collect a required number of coins for dispensing the article,

wherein the motor selection/drive device is constructed to select the motor corresponding to the coin collecting device to which the required number of coins have been inserted and to supply the electric power from the generator only to the selected motor.

7. The vending machine according to claim 6, wherein the coin

collecting device is constructed to collect the inserted coins after the article has been moved into the article guide path by the operation of the article moving mechanism.

8. The vending machine according to claim 7, wherein the motor selection/drive device is constructed so that a timing of starting to drive each of the plurality of motors corresponding to the plurality of coin collecting devices is defined to be different from each other in order to prevent two or more articles from being put substantially simultaneously into the article guide path by the operation of the plurality of article moving mechanisms when the required number of coins have been inserted in the plurality of coin collecting devices.

9. The vending machine according to claim 6, 7 or 8, wherein the coin collecting device is constructed to permit the inserted coins to be reset only when the article moving mechanism is located at a operation start position.

10. The vending machine according to claim 5 or 6, further comprising a battery or rechargeable battery to be charged with the output of a battery or the generator,

wherein the battery or the battery or rechargeable battery is used as a driving power source for the motor selection/drive device.

11. The vending machine according to claim 6, 7 or 8, further

comprising a capacitor to be charged with the output of the generator, which is used as a driving power source for the coin collecting device.

12. The vending machine according to claim 5, further comprising a display device that carries out electrical and/or voice indication by using the output of the generator.

13. The vending machine according to claim 5, wherein the manual operation means includes a rotary member rotating about a rotating shaft and a handle section provided at the rotary member, which is driven to rotate the rotary member, and

wherein the drive force generation/transmission mechanism includes an accelerating mechanism that causes the rotating shaft of the generator to rotate at a higher speed than that of the rotary member

14. The vending machine according to claim 5, wherein the article moving mechanism includes a rotating shaft having an axis line that coincides with a center line of the article stocker and is driven by the drive force to rotate the article stocker, a first moving mechanism that moves the article from the article stocker, which is rotated as the rotating shaft rotates, to a predetermined position, and a second moving mechanism that moves the article, which has been moved to the predetermined position as the rotating shaft rotates, into the article guide path.